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June

☞ **Thursday, June 18** *New Hampshire Plant Growers' Association Twilight Meeting*, Churchill's Garden Center, 12 Hampton Road, Exeter, NH; Jim Moser at 603-772-2685.

19-20 (Friday, 5-9pm; Saturday 9am-2pm) *Tenth Annual "Pocket Gardens of Portsmouth" Tour*, sponsored by South Church, Portsmouth, NH; 603-436-4762.

July

7-9 *Perennial Plant Symposium*, Westin Hotel, Copley Place, Boston, MA; 614-771-8431.

11 *New Hampshire Orchid Society Meeting*; speaker: Carson Whitlaw, Adel, Iowa ("Native Terrestrial Orchids"), Bedford Public Library, Bedford, NH; 603-654-5070.

15 *Connecticut Nurserymen's Association Summer Meeting*, Imperial Nursery, Granby, CT; 860-204-9162.

18 *Tour of the Gardens of Lake Sunapee*, Newbury, NH; information: Friends of John Hay National Wildlife Refuge at 603-763-4789.

22 *"A Cruise into Lake Sunapee's Past"* to benefit The Fells, Newbury, NH; 603-763-4789.

25-26 *Mount Washington Valley Garden Trail* (awards ceremony: July 19); information and map locations: Joan Sherman at 603-367-4764.

26 *Ninth Annual State of Maine Open Farm Day*; Jane Aiudi at 207-287-3891.

August

☞ **Wednesday, August 5** *New Hampshire Plant Growers' Association Summer Meeting*, UNH Research Greenhouses, University of New Hampshire, Durham, NH; Paul Fisher at 603-862-4525.

5 *Rhode Island Nursery and Landscape Association Summer Meeting*, Roger Williams Park, Providence, RI; 508-761-9260.

5 *Woodman Horticultural Farm Open House*, UNH, Durham, NH; John McLean at 603-868-2345.

6 *Massachusetts Certified Horticulturalist (MCH) Exam*, Waltham, MA; Rena Sumner at 413-369-4731.

7-9 *24 Northeast Organic Farming Association (NOFA) Summer Conference*, Hampshire College, Amherst, MA; 978-355-2853.

12 *New England Nurserymen's Association Summer Meeting*, Prides Corner Farm, Lebanon, CT; 508-653-3009.

12 *Athletic Turf Field Day*, in cooperation with NESTMA; Mary Owen at 508-892-0382.

14 *Benefit Auction*, The Fells, Newbury, NH; 603-763-4789.

15 *Seventh Annual Plant Sale*, The Fells, Newbury, NH; 603-763-4789.

16 *Third Annual Rockingham County Open Farm Day*; information and itinerary: 603-679-5616.

September

9 *Connecticut Greenhouse Growers Association (CGGA) "Evening at the Greenhouse"*, Grower Direct, Somers, CT; 203-261-9067.

October

3 *Hay Day: A Family Open House*, The Fells, John Hay National Wildlife Refuge, Newbury, NH; 603-763-4789.

7-9 *National Lawn and Garden Trade Show*, Fort Washington Expo Center, Fort Washington, PA; 203-847-9599.

7-10 *International Plant Propagators Society Eastern Regional Meeting*, Toronto, ON, Canada; Margot Brigen at 860-429-6818.

8-10 *International Plug Conference*; Kissimmee, FL; 630-208-9080.

19-21 *New England Greenhouse Conference*, Worcester, MA; Henry Huntington at 603-435-8361.

28-31 *Association of Specialty Cut Flower Growers National Conference and Trade Show*, Raleigh, NC; 216-774-2887.

November

18 *CGGA "Evening at the Greenhouse"*, DeVlyder Florist, Cheshire, CT; 203-261-9067.

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Cover: Floriculture and technology—two aspects of the UNH research greenhouses; photographs by Rick Raymond.

The *Plantsman* is published in early February, April, June, August, October, and December with copy deadlines being the first of each prior month. While camera-ready ads are preferred, set-up assistance is available at a nominal fee. Free classified advertising is offered as a member service. We will carry a short message (no artwork or logos) for one or two issues of *The Plantsman*.

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For further information, please contact the editor: Robert Parker at the UNH Research Greenhouses, Durham, NH 03824, 603-862-2061; or PO Box 5, Newfields, NH 03856, 603-778-8353.

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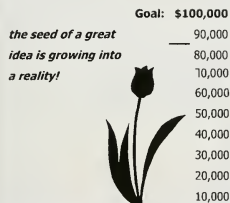
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New Hampshire Horticultural Endowment

Here is the list of donors to the New Hampshire Horticultural Endowment. After less than one year, this is quite an impressive testimony to the dedication of the plant community in New Hampshire and surrounding areas. We would like to thank everyone who has donated money or contributed time, creative ideas, and encouragement to the project. We have nearly reached our initial goal (pledges now total \$85,000) and we look forward to putting the funds to work improving the quality of plants in New Hampshire.

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For those wishing to contribute, checks made out to "New Hampshire Horticultural Endowment" can be sent to New Hampshire Horticultural Endowment, 7316 Pleasant Street, Loudon, NH 03301. For more information, contact Peter van Berkum at 603-463-7663 or Henry Huntington at 603-435-8361.

Some Predictions for 1999

Nancy Adams

UNH Cooperative Extension has purchased four temperature logging devices through a grant from New England Grows. These devices periodically sample the outdoor temperature, store the data, and, using the accompanying software, allow the temperature to be downloaded to a computer for analysis.

How will this information be used? Each day the average outdoor temperature will be determined and compared against a base threshold of 50F. Any daily averages higher than 50F will be accumulated on charts. These charts indicate what are called De-

gree Days (DD) and this information can be used to predict insect emergence. Although the method is not always accurate, it does help growers, landscapers, and nurserymen plan for the arrival of troublesome pests such as *Taxus* mealybug, lilac borer, and lace bug.

This year, the project is in the developmental phase. We will be meeting with the NH Department of Agriculture this winter to see how we can best collect, analyze, and disseminate the information to growers in the 1999 growing season.

For more, contact Nancy at 603-679-5616.

Success in the West

We try to design a year's twilight

meeting schedule so that these meetings are accessible to as many members as possible. Our first 1998 meeting was held on the western side of the state—at Kathan Gardens in Newport. A good turnout toured the houses, saw a demonstration of Kathan's new sign maker, and heard Dave Seavey, Merrimack County Cooperative Extension, discuss the program he's designing to assist garden centers in developing marketing plans. (Kathan Gardens is involved with this.)

We thank Dennis and the Kathan Gardens crew for their hospitality and Dave Seavey for his presentation. A lot seems to be going on in the industry and it's important to get together to see the changes first-hand.



Membership Drive!

We are looking for a few good new members.

WHO DO YOU KNOW? Pass this on to someone who'd benefit from membership. The more members we have, the more we can do for you and our industry.

WHY JOIN? Twilight Meetings. Visit horticultural operations around the state, talk with your colleagues, and see how another business solves the same problems you have. **Summer Trade Show.** Our big event! Meet directly with your suppliers, make new contacts, and enjoy a great barbecue. **The Plantsman.** The best horticultural association publication in the Northeast. Free with every paid membership. **Legislative Issues.** More members means more clout on the political front in Concord.

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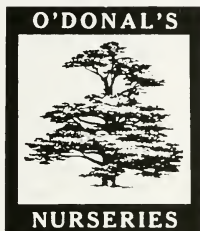
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ROBERT DEMERS

Spring is over and for some of us, it's time to slow down, but for me and most garden centers like mine, we have just begun. Once Father's Day comes around, our cell-pack annual selection will be small, but our jumbo annuals and perennials will be in the thousands. Annuals and perennials in 6 1/2-inch, 8 1/2-inch, one-gallon, and two-gallon pots will fill every square inch of space I have.

This is also a good time to take a few notes and put them in a spring order file for next year. Give yourself a reminder as to what your customers are buying while it's still fresh in your memory. Also write down what you had a hard time getting or what sold well, so you can grow your own or get more in next year. We try to keep note of what kinds of containers our customers are asking for as well as which ones they are buying, so that next year, we can offer those containers with plant material already in them.

Last year we noticed that mixed baskets and Proven Winners sold the best, so a lot of our greenhouses were dedicated to growing just these. We also noticed that a lot of our customers bought

flower bags or pouches. Some of our growing houses had nothing on the posts, so we grew flower bags on all our empty posts.

A few of our houses have shelving or brackets, but the houses that have bare wall were suddenly full. This didn't interfere with the natural light and increased the retail production value

a thousand dollars per house.

Creative containers are becoming more and more popular. I strongly urge you to attend greenhouse open houses, twilight meetings, and your state association's trade meetings to learn more about them. Your customers—not trade store bargain hunters, but your true customers—are more educated and more curious—more eager to learn about new ideas. If you don't satisfy this curiosity, your customers will move on to somebody who can.

So this year, as you visit our summer meeting on August fifth, take some notes and talk to the various vendors there. Change your way of thinking about how and what you are growing. By doing this, you'll not only sell more, but will keep your customers curious as to what you'll be offering next.

Satisfying your customers' curiosity and your cash register are probably the two best creative-container combination baskets you can grow.

Robert Demers, Demers Garden Center, 656 South Mammoth Road, Manchester, can be reached at 603-625-8298.

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A Vigorous Turnout

The Spring UNH-FFA Interscholastic Career Development Events were held at UNH Thompson School on April third. It was good to see a very large and vigorous turnout.

In the nursery/landscape event, Pinkerton Academy (Derry) earned the largest number of points; Coe-Brown Academy (North-wood), the second largest; and Seacoast School of Technology (Exeter), the third. Individual high scorers were Brad Briggs (Pinkerton), Sam Barnes (Coe-Brown), and Josh Knowles (Coe-Brown), respectively. Students from five schools tested their skills.

Seven schools were involved in the floriculture event. Here, Alvirne (Hudson), Dover, and Pinkerton earned the largest numbers of points. Individual high-scorers were Tracey Ross (Alvirne), Becky

Moore (Dover), and Kim Smith and Katie Descoteaux (both Alvirne).

Once again, many people—from UNH, from FFA, from private industry—involved in organizing this event are to be thanked. Agriculture—continually evolving—is still an important part of New Hampshire's landscape and encouraging students to enter its various aspects is a worthwhile endeavor.

Director Named

John E. Pike has been named Dean and Director of the University of New Hampshire Cooperative Extension. The appointment was made by UNH President Joan Leitzel and Vice-president for Research and Public Service Donald Sundberg following a nationwide search. Pike has served as associate director since 1986.

Orchids Honored

It was "a nice show; a nice turnout. People are beginning to expect us here around this time of year." This described the seventh annual New Hampshire Orchid Society Show held at the Nashua Armory during the last weekend of April.

The trophy sponsored by the New Hampshire Plant Growers' Association was given for the "Best Artistic Display (Members' Choice)" and went to Bob Barth and Marty Epstein for their "The World According to Orchid Species"—a globe six feet in diameter, geographically accurate, with over 100 orchid species placed in the correct locations.

Winners included an *Ancellia africana* grown by Bert Consentino, Manchester, NH; a *Lycaste* 'Pixie' (brilliant yellow flowers; strong fragrance) grown by Dr. Wilford



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Neptune, West Newton, MA; and a phalaenopsis 'Penang Queen x Equistis' grown by Paul Sawyer, Sawyer's Exotic Greenhouse, Grafton, NH.

For information about these plants and their owners—and the organization to which they belong, call Joanna Eckstrom at 603-654-5070. Visitors and newcomers are welcome.

NHLA: Scholarships . . .

Two students from the Thompson School, University of New Hampshire, have won scholarships from the New Hampshire Landscape Association. Kathleen Carter and Ryan Kuczewski were each awarded \$1500 at the association's annual spring conference in March.

After careers in teaching, real estate, and retail, Kathleen is returning to an earlier interest in her study of horticulture. "With a de-

gree in horticulture, plants and gardening will have prominence in my life, regardless of the corner of the world in which I find myself," she said.

Ryan, also a horticulture technology major, got his first job, at a wholesale nursery, when he was thirteen. "All I usually did was unload trucks that were full of soil bags. After awhile I started filling pots and putting plants into them. This is what started to interest me. I liked working with the plants and wanted to know more about them."

. . . and Pearson Awards

Also at the NHLA spring conference, the 1998 Leon E. Pearson Awards for Landscape Excellence were presented.

The Award for Excellence (for consistently superior quality) went to

Homestead Landscaping Co., Inc. (Frank Todd, principal), of Rowley, Massachusetts, for a residential design in York, Maine.

The Merit Award (for outstanding work) went to Thomas Berger of Green Art, Portsmouth, New Hampshire, for the design for a residential town garden in Portsmouth.

The Honor Award (for a project deserving high praise and recognition) was presented to Three Seasons Landscaping (Rick Rideout, principal), Hopkinton, New Hampshire, for the design of a tiered garden entrance for a private residence in Concord, New Hampshire.

The projects involved much more than planting; with the designers dealing with such things as drainage, surface runoff, ocean exposure, deer damage, traffic patterns, roots, and the whims of their clients, the awards seem deserved.

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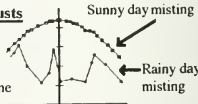


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At this year's NHPGA summer meeting, hosted by the University of New Hampshire, the research and renovations taking place at the UNH greenhouses will be a major focus.

But there is more. Tours focus upon greenhouse technology, the horticultural farms, landscape material, and turf. Topics—marketing, new crop development, computer usage, etc.—and personnel—from Cooperative Extension, Thompson School, and Plant Biology—are wide-ranging.

Along with all this, there is the tailgate trade show, an all-you-can-eat barbecue, and the auction benefiting the NHPGA scholarship fund.

It is also the day of the annual open house at the Woodman Farm.

And August is a time to see the UNH campus—and all its changes—at its most pastoral. It's a time to remember—and appreciate.

Registration information, along with a more detailed list of the day's activities, will be sent to all members.

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Research for the Green Industry

Dr. Paul Fisher

New research on display will be one of the highlights of the NHPGA's summer meeting held here at the UNH greenhouses on August 5. Many projects are underway.

Some of our greenhouses have been set up to provide precisely controlled growing conditions and these are packed with a variety of crops receiving different environmental controls. Here, rather than formal talks, there will be poster displays throughout, with people to help you interpret the information.

Jeremy Bishko, a Master of Science student, is evaluating strategies for controlling pH, especially for bedding plant species. There are many materials that have been recommended to control pH: for example, potassium bicarbonate and flowable lime to make media basic, or sulfuric acid and iron sulphate to acidify the media. We're running tests to find which products and what rates can effectively correct a problem.

Plant breeder Dr. Rosanna Freyre is beginning a new crop development program for ornamental plants. One of her first projects, with student Linda Bilodeau, is an evaluation of over a dozen sources of blue pimpernel (*Anagallis monellii*) for landscape and hanging basket use.

Another crop we are evaluating is sandersonia, sourced from New Zealand as an alternative cut flower.

If you are growing or planning to grow lilies, our greenhouses contain trials of fifteen cultivars of oriental, Asiatic, and hybrid lilies, a project in collaboration with Dr. Heins at Michigan State, Ednie Bulbs, Inc., and several New England growers. My technician, Brandon Smith, and I are developing graphical tracking tools to help growers time lilies for target flowering dates and to optimize growth retardant applications.

So come along. These are just a few of the projects on display. I'm sure you will learn something of value for your business.

Paul Fisher, Department of Plant Biology, can be reached by phone at 603-862-4525, fax at 603-862-4757, or e-mail at prf@hopper.unh.edu.

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The 16th Annual Symposium

In early July, the Perennial Plant Association's annual symposium will be held in Boston, Massachusetts. Tours and activities will be both in the city and in the surrounding area.

The symposium itself is on July 7-9, but tours on Monday, July 6, include "New Hampshire," "Marketing and Retailing," "Boston Private Gardens," and "Arnold Arboretum and Mt. Auburn Cemetery." (Each is all-day; you can only choose one.)

The New Hampshire tour includes Uncanoonuc Mountain Perennials Goffstown, Van Berkum Nursery (Deerfield), and Bedrock Farm (Lee), as well as Newbury



Perennial Gardens in Byfield, Massachusetts.

Symposium speakers include Bill Cullina, New England Wild Flower Society ("New Ideas in Wildflower Propagation"); Leslie and Peter van Berkum ("How We Operate our New Hampshire Nursery"); Kris Fenderson, Acworth, NH ("Hardy Primulas"); Wayne Winterrowd, North Hill, Readsboro, VT ("Embellishing the Border with Unusual Annuals"); and Steven Still, Ohio State University ("Cultivar Names, Plant Patents, and Trademarks—What Do They

Mean?"). This is only a sampling.

And on Friday and Saturday, there are tours to the west and south of the city.

For more information (preregistration is required by June 20), contact the Perennial Plant Association, 3383 Schirtzinger Road, Hilliard, Ohio 43026; the phone number is 614-771-8431; fax, 614-876-5238.

1997 New England Greenhouse Conference Grant Awards

The NEGC has awarded the following grants:

Dr. Douglas Cox, UMass, Amherst, "Manganese toxicity to marigold and how it is affected by calcium



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and magnesium nutrition" (\$2,000);

Dr. George Elliott, University of Connecticut, Storrs, and Dr. Wade Elmer, Connecticut Agricultural Experiment Station, New Haven, "Evaluation of biological fungicides for control of soilborne pathogens in greenhouse crop production" (\$2,000);

Ms. Donna Ellis, University of Connecticut, Storrs, "Evaluation of *Serangium parcesetosum* (Coloptera: Coccinellidae) as a potential predator of silverleaf whitefly, *Bemisia argentifolii* (Homoptera: Aleyrodidae), in greenhouse poinsettia" (\$2,000);

Dr. Richard McAvoy, University of Connecticut, Storrs; "A molecular genetic approach to improving Easter lily" (\$2,000);



Dr. Len Perry, UVM, Burlington: "Comparative resistance of New England aster cultivars to rust fungi" (\$1,900);

Dr. Lois Berg Stack, University of Maine Cooperative Extension, Orono: "Use of red plastic mulch to increase stem length of field-grown specialty cut flowers" (\$1,096);

Dr. Roy Van Driesche, UMass, Amherst: "Fact sheet on biological control and IPM tactics for suppression of western flower thrips in greenhouse floral crops" (\$2,000);

Dr. Robert Wick, UMass, Amherst: "Evaluation of disease-suppressive growing media and biological agents for floriculture production" (\$2,000).

1998 New England Grows Awards

On January 22, 1998, Owen J. Regan, president of New England Grows, made grant presentations of \$4,000 each to representatives of the six New England state Cooperative Extension systems. These grants will be used as follows:

Connecticut: to expand their nursery and landscape Web site;

Maine: to support Maine's pot recycling program, an evaluation of shrub roses, and a new garden



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center training program;

Massachusetts: to continue the Landscape Pest Message System (an 800 number for Green Industry professionals to access weekly pest and disease information);

New Hampshire: to develop a Growing Degree Days monitoring system, produce a garden center evaluation handbook, and support research looking at mycorrhizae applications;

Rhode Island: to increase grower knowledge of proven methods to control deer injury to nursery and landscape stock;

Vermont: to help establish a study of rust diseases of perennial asters, expand coverage of perennials on Dr. Leonard Perry's Web site, and support trials of new overwintering

covers for container perennials.

New England Growers will be held on January 28-30, 1999. For information, contact Virginia Wood at 508-653-3009.

Election Year Results

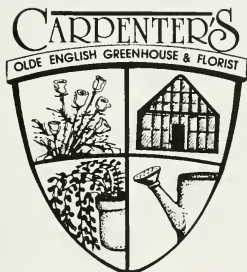
A Connecticut Legislative Alert from the Connecticut Greenhouse Growers' Association read in part:

"The Labor Committee of the Connecticut General Assembly has approved and sent to the House and senate floors a bill that would raise the state minimum wage from the current \$5.18 per hour to \$6.30 . . . jumping the wage up a full \$1.12 in one swoop will have a devastating effect on hiring entry level workers and will suddenly put pressure

on employers to raise other employee wages—whether justified or not.

"The Labor Committee has also approved and sent to the House and Senate floors a bill that would mandate overtime pay (time-and-a-half) for all workers on Sundays and holidays in companies that have retail facilities of 3,500 square feet or more. Currently, you pay overtime only on hours worked beyond 40 in a work week—and the employer has always been the one to determine what the work week is. This bill suddenly changes the rules."

As of May first, the minimum wage was increased by one dollar—Connecticut's minimum wage is now \$1.03 above federal standards; the bill mandating Sunday overtime pay is still pending.



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The Green Spot

Norman was small for his age. This didn't bother him though. He was as tough as nails and ready for anything. And, as he would soon find out, his "anything" was just around the corner.

Norman is a parasitic nematode. As a member of his Hb clan, he was automatically given due respect. The Hb (for *Heterorhabditis bacteriophora*) clan was known for its agility and versatility. Its members wear tough outer jackets and all are cool.

Initiation into full membership requires that the clan's nearly-adults submit to an underground adventure of sorts. They're told to leave the safety of their hideout (which, incidentally, is the carved-out, rotting remains of a grub) and to locate a new hideout host without getting fried in the sun or dehydrated.

As did his brethren, Norman complied. Snaking his way along a myriad of uncharted passageways, trying to pierce the darkness, Norman hunted his quarry. However, Norman, always trying to impress, wasn't after just any hideout host. He was after the roomy and impressive Japanese beetle grub. And he could feel in his gut that he was getting close.

Norman scored! "One super-grub coming up!" he shouted into the darkness. His buddies heard the distant shout and began to move toward it.

Norman managed to cut his way through the hideout's exterior, exposing the soft and supple flesh. Just as he was about to enter and claim victory for himself and his tribe, the other nearly-adults rounded the bend with a whoop. They stopped in their tracks. Something was different. It was Norman. He was now . . . uh, grown, or something.

The approached Norman with reverence. They admired his new posture. They hoisted him onto their shoulders and carried him into the host. Together they ravaged and subdued the grub.

A few days later, Norman, a magnificent example of an adult nematode now, and his well-fed buddies, also grown, swaggered back to headquarters to share the tale of Norman's triumph.

Well, news travels fast in the dirt kingdom. The managing seniors, Norman's forefathers, had already heard the saga. When Norman the Nematode walked through the door ahead of the pack, the tribal leaders, in unison, spoke only two words: "Hey Norm!"

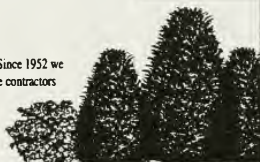
Mike Cherim, president of The Green Spot, Department of Bio-Ingenuity, 93 Priest Road, Nottingham, NH 03290-6204, can be reached at 603-942-8925.



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Culver's Root

NANCY SURETTE

Reprinted from *Granite Trowel*,
Autumnal Equinox Edition,
Master Gardener Publications

I was thinking about a native perennial that can be obtained, yet is undiscovered: something for the late summer and early fall. Then I recalled a day's journey that I took with the New England Wildflower Society several years ago to Holy Hill, in Harvard, Massachusetts. It was there that I discovered a field of Culver's root (*Veronicastrum virginicum*) majestically swaying in the breeze.

This is Shaker country and the Fruitlands Museum has a documented herbarium done by Shaker Elisha Myrick over 140 years ago. Culver's root (also known as black root, Bowman's root, wild veronica) is included. There is no doubt that this field represents a new generation of plants originally grown by the Shakers.

Culver's Root is not for the faint-of-heart. This native from the eastern part of the United States will grow from three to six feet tall, and it is obviously a back-of-the-border plant. The terminal white flowers which grow in spire-like wands are faintly tinged with blue. It is a long bloomer, starting in June and performing through to the early fall.

My favorite use for this plant is in mass along the a

woodland edge of meadow. It gives a person the feeling of a waving sea of white. Culver's root likes a sunny meadow or open woodland shade with moderate acidity. It will even tolerate damp soils. This makes it particularly attractive with other giant native perennials such as Joe-Pye-Weed, swamp milkweed, and New England aster. In the garden, it solves the problem if you need a vertical emphasis. Coreopsis, yarrow, cranesbill geraniums, and daylilies go wonderfully in front of it.

Occasional division may be necessary in the spring or fall. Stem cuttings are slow to root and do not bloom until the third year. You may also sow seeds when they are ripe. Potted stock should be spaced eight to twelve inches apart, and planted at soil level and mulched. Any bare stems should be covered with a half-inch of soil or humus; new roots will develop, especially if the soil is kept moist.

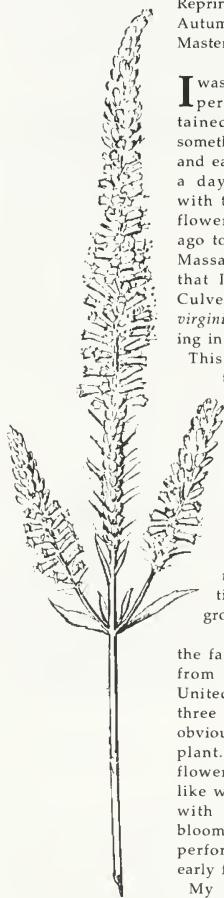
This wild veronica is a good flower to use in bouquets; it lasts a long while after being cut. The dried flower stalks are excellent for dry floral arrangements.

In Massachusetts, Culver's root is on the rare native plant list, classified as "a species of special concern". As such, *V. virginicum* is protected by the State Endangered Species Act. My unverified suspicion is that the same is true in New Hampshire. There is more reason than ever to help it make a comeback by purchasing some plants of your own.

At least one major New Hampshire wholesale grower lists Culver's root in their catalog, describing it as "elegant white spires and deep green leaves, for specimen, back of the border. Very vertical and erect; its stiff seed head spikes will often provide winter interest." It is therefore possible to obtain or order nursery-grown plants.

The Culver's root has it all: elegance, long bloom, drying qualities, no serious pests or diseases, uniqueness, and availability through nurseries. It might just be the new neighborhood rage.

Nancy Surette, principal of Seedling-Naturescapes, a landscape design/consulting firm in Windham, NH, can be reached at 603-893-7904.



Control of Black Vine Weevil in Potted Nursery Plants

DR. STANLEY R. SWIER, ALAN ROLLINS, RACHAEL LAMARCHE, AND MEGGAN HODGSON

Control of the black vine weevil is very difficult. The weevil emerges from overwintering sites in spring and seeks out host plants. The adult chews on leaves, causing characteristic notches. These notches are particularly common on taxus and rhododendron. The larvae feed on the roots, reducing growth and predisposing the plant to winter kill. If the plants are kept warm, larvae will feed during the winter. Since the adult is active all summer, controlling the adult requires frequent sprays to the foliage throughout the growing season. A better strategy is to target the larvae which do the most severe damage. We investigated some promising chemical and biological controls for larval control in 1997. Van Berkum's Nursery generously provided us with 160 potted plants (Bridget bloom, *Heucherella alba*) at no cost. FMC Corp. provided financial support for labor. Nematodes were obtained from The Green Spot. The black vine weevil eggs were obtained from the Connecticut Agricultural Experiment Station in Windsor. The trial was conducted at the UNH Kingman Farm.

Ten replications of six treatments were applied to seven-inch pots. Talstar granules were incorporated into the media based on the bulk density (0.24 g/cc). Merit was applied according to pot size. Both these granules were incorporated into the pots on June 10 and the plants repotted. Surface applications of Talstar Flowable and Lorsban granules were done on June 30. The first application of nematodes was applied July 13 and repeated every two weeks for a total of four applications. We chose the nematode *Heterorhabditis bacteriophora* because of its ability to actively seek out prey in soil. The liquid formulations and nematodes were poured over the surface of the

pot. All granular formulations and nematodes were watered in after treatment. Since the weevil larvae are sensitive to heat, the pots were buried in soil to the rim. Pots were shaded with 60% black greenhouse shading material suspended eight feet above the pots. Plants were watered as necessary. Over

50,000 black vine weevil eggs were placed in the pots on June 30 and August 20. On October 17, the pots were removed from the soil and checked for live larvae.

As you can see from the table, Talstar F, Lorsban (Dursban) G, and the nematodes performed well. Merit (Marathon) gave fair control. We have shown that nematodes worked well under these conditions. Potted media lacks nematode predators and has sufficient pore space for nematode movement. Nematodes applied to dense soils may not

work as well. Excellent control may have been possible with fewer applications of nematodes, but several applications are usually necessary to account for nematode mortality. The granular formulation of Talstar has been reported to give black vine weevil control for two years once incorporated in the media. Its failure in this test may be to some unusual properties of the media or other unknown factors. These data are the results of limited research trials for your information. When using these pesticides, you must follow all label directions. UNH Cooperative Extension does not endorse these or discriminate against other such products.

Stan Swier, entomology specialist, UNH Cooperative Extension, is at 603-862-1733.

TREATMENT	RATE	MEAN NO. LARVAE/POT	% CONTROL
Talstar G	10ppm Al	4.9 a	14
Talstar G	25ppm Al	2.2 ab	61.4
Talstar F	0.1lb Al/100 gal ¹	0 b	100
Talstar F	0.21lbAl/100 gal ¹	0.2 b	96.5
Lorsban 15G	150g Al/cu yd	0.4 b	93
Merit .5G	2.6g form/pot	1.4 b	75.4
H. <i>bacteriophora</i> ²	2000/sq yd	0.2 b	96.5
Check	n/a	5.7 a	n/a

Means followed by the same number are not significantly different ($p=0.05$, Scheffe)

1. 132 ml of solution/pot 2. Four applications



Stratham Circle Nursery The Big Box on the Circle

"Look out the window." We were in the office above the shop. "They're taller than the telephone pole."

The view overlooked the nursery yard. It was dusk. At the far end, the rose—soft, clear, vertical—above the dark horizontal of the nursery stock. I counted: "Seven...eight..."

"Ten. Crimson kings."

"They look like poplars."

"I got them today. They haven't opened up yet."

"Can you sell them?"

"A guy's coming to look tomorrow."

DAVE SHORT, OWNER AND operator of Stratham Circle Nursery, admits that there may be something in the truism that a person can expect to do only one thing really well. The thing he has chosen to do is to sell nursery stock.

Within this focus, he has chosen an even more precisely defined niche: Stratham Circle specializes in "big stuff"—trees of three-inches-and-up caliper. And the unusual. "People want distinctive landscapes, but they want them immediately. They're willing to pay for full-sized specimens."

He began the business seven years ago. Dave and his wife Jeanne were living in Rye (Dave was working as a landscape contractor) when ten acres of field on the traffic circle came up for sale.

The first year, a 30'x36' shop (a clapboard cape with a checkout counter, hardgoods display area, and a south-facing glass wall for interior plant material on the first floor and an office in the loft) was built 100 feet back from the road and maybe an acre of material was offered. Today, material fills six of the ten acres.

The site—on the Stratham traffic circle, at which Route 33 (to Ports-

mouth) intersects 108 (Exeter/Newmarket/Durham)—is certainly visible. The sign—in a bed of tulips across from a grove of pine at the head of the driveway—is small, but the nature of the business is obvious.

ORGANIZATION IS STRAIGHT-FORWARD. Perennials are in and around a 14'x96' hoop house on the other side of the parking area across from the shop. A 20'x80' lath house holds less sun-loving shrubs. Access roads—some bridging drainage swales dug by the CCC in the thirties—divide the yard into blocks.

There is no final plan—he "chips away at using space effectively." "Good land is getting hard to find. It's best to use what you already have efficiently—when you think about it, you find you have all kinds of room."

Behind the yard is their home—and a pond. A water source in case there are well problems, the pond is also a place for their three children to fish, swim, skate—"every kid should grow up near a pond." The town was looking for clay to use for filling and sealing the town dump—"we had plenty and were glad to help out. It worked out for both of us."

AESTHETICS ARE IMPORTANT. Crushed rock has been spread in many areas ("Mud is one of my pet peeves—it looks bad and it slows down productivity.")

Specimen trees are focal points. Dwarf Korean fir (*Abies koreana*)—"unique purple cones"—and camperdown elm (*Ulmus glabra* 'camperdownii', are used effectively, contrasting against the material behind them. Across from the shop, one 8-foot Tolleson's weeping blue juniper (*Juniperus scopularus* 'Tolleson's blue') stands at the beginning of an access road.

Holding areas can be garden-like. Beyond the juniper, *Daphne* 'Carol Mackie' and *Chamaecyparis obtusa* 'Hinocikii' are displayed together under clumps of birches.

And the drainage swales have aesthetic value, creating a grid of water and cattails and red-winged blackbirds that break up the blocks of trees. Along one portion, mowed grass slopes to the water and willows have been planted.

"Display gardens are a good idea, but it's one of our lower priorities." However, he concedes their usefulness with an example: "a mature dwarf arctic willow (*Salix purpurea* 'Nana')—a beautiful plant with slender silvery leaves that move in the slightest breeze—shows off its potential in the landscape in a way that containerized material cannot."

HE BASES HIS ORDERS on previous years' sales, but this year's trends will be based on what the gardening magazines emphasized during the winter. "People tend to buy what they read, not what

*Basically, we're a warehouse.
We happen to be outdoors, that's all."
This description . . . is basically correct.
However, a warehouse is defined by its contents and the contents
of this one are unusually varied and thought-provoking.*

they see—for example, I think the Chinese fringetree (*Chionanthus retusus*) is a great ornamental. White flowers, dark blue fruit (on females), exfoliating bark, does well in zone 5—it has it all, but I can't sell it at gunpoint. People want their Newport plum—people are fascinated by purple leaves."

He chooses items that "are not necessarily commodity items," defining "commodity item" as "something the big boxes get into; something we independents can't offer at a competitive price and still receive a sustaining profit margin. Ten-to-fifteen percent is not sustaining."

Not just the trees are big—maiden grass (*Miscanthus sinensis 'gracilimus'*)—is offered in field clumps; Harry Lauder's walking stick (*Corylus avellana 'contorta'*) is large enough to accurately indicate its final place in the landscape.

The expected are here, but in larger numbers and a greater choice of cultivars—there are 900 crab apples on the lot and perhaps 25 cultivars; there are ten cultivars of beech and fifteen of Japanese maple—"a fun plant—lots of character."

The usual is offered in unusual forms—*Juniperus* Sea Green 'Pom Pom,' for example, seems to be wind-contorted, "oriental," and a topiary, all at the same time.

IN THE FIRST WEEK OF MARCH, balled-and-burlapped material—as tightly budded as possible, starts arriving (just before the blackbirds). He buys from growers throughout the northeast—Baker Valley up in Wentworth; from Canada, Ohio, Pennsylvania, New Jersey. "I buy a lot from Princeton Nursery in New Jersey. I go down in late summer and pick what I want for the fol-

lowing year. I spend a week in the field, tagging individual specimens."

"Labelling is crucial. I use a software program designed specifically for that purpose. Ninety percent of what I order is already on the program and the program allows you to edit and create your own labels, so I do the rest myself."

Around 40,000 perennials are potted up. The three hoop houses—the house across from the parking lot and two others toward the back of the yard—are covered with clear plastic and filled with the more sensitive material. He also offers a range of annuals. Four types of bark mulch are sold by the yard.

"We do carry some commodity items—bagged goods, for example (a necessary evil)—for natural spin-off sales, but only for that reason."

In summer, about fifteen people are on the staff; his wife does the books. His sales are both retail and wholesale. "We're not trying to sell to the road contractor. We sell locally to the higher end of the residential and commercial. We do deliver, but are choosing to do less design and installation work."

"We've done very little marketing. I think most advertising is a waste of money. I do have an ad in the *Exeter Newsletter* and in the yellow pages, but visibility and word-of-mouth have increased our business the most."

"I've never done a business plan—there's a lot of impulse in how things develop here. I've never had any courses in plants or botany. I got a degree in math at SUNY Plattsburgh—which actually has been very useful in making the numbers work. My family were all farmers and I landscaped summers to earn money for college—so the

career choice isn't that surprising. I've always liked the physical/outdoor/plant side of things."

He experimented with being open the entire year, but "it wasn't worth it." He closes at the end of November and uses the winter for planning and ordering.

Perennials and shrubs are overwintered in the three hoop houses covered now with opaque plastic. "We don't overwinter evergreens—we're wide open here and they'd desiccate in the wind—but we do buy some things—crabs, maples—in the fall. It's a good deal for the grower. We get a lot out of Jersey—which is close enough climatically. We cover the ball—big enough so the root isn't really cut—with bark mulch and they do fine. It gets them onto our flowering schedule."

"We don't grow ourselves, but a grower could do well here. You'd need to intelligently choose what you grew and have a quick turnaround. You'd also need to reach a certain critical mass in order to break even. Most material is grown further south. New Jersey has an additional month on each end of the season, which adds up to an additional year of growing time for every six in New Hampshire. Still, there's a 15-25% freight cost, so that's in a local grower's favor."

"Basically, we're a warehouse. We happen to be outdoors, that's all." This description—although harsh, is basically correct. However, a warehouse is defined by its contents and the contents of this one are unusually varied and thought-provoking. (BF)

Stratham Circle Nursery is at 4 College Road, Stratham, NH 03885; the phone number is 603-778-3711.



My I.F.Y.E. Experience in Botswana

JENNIFER BARTON

Have you ever carried water on your head? Taught a group of children who don't speak English to play Duck, Duck, Goose? Been scared by a hippo? Roasted chicken intestines over a fire? Been moved to tears by children singing and dancing for you, or by a simple gift of pottery made from cow dung and ashes? These are just a few of the experiences I had last year as an International 4-H Youth Exchange Delegate to Botswana, Africa. People ask me if I took nine months "off" to be an I.F.Y.E. Actually, it was definitely nine months "on" to life, and a most amazing time which I wouldn't trade for any thing.

The I.F.Y.E. program is an incredible opportunity for people ages 19 to 30 who are interested in learning firsthand about the culture and lifestyle of another country. Each year, two delegates are chosen from New Hampshire to represent our state and country in this exchange with many different countries around the world. The "I.F.Y.E.s" stay with host families in their assigned country for three or six months and learn the lifestyle by living it! When New Hampshire participants return to the state, they do a ten-week tour, giving slide presentations to school and civic clubs. Donations from these talks help to fund I.F.Y.E. trips for next year.

So where is this country? Botswana is in the center of the southern tip of Africa, is about the size of Texas, and has a population of about 1.3 million. It is a stable, peaceful country with a democratic form of government, having gained independence from England in 1966. The national language is Setswana, although many people also speak English and their own tribal language as well. I got to learn greetings in four different dialects, and even received two new names in the native languages ("Neo" and "Kapako"). The Batswana live in mud or cement houses and cooking is done mostly outside, over an open fire. The large cities have computers and street lights, but conveniences like electricity, running water in houses, and

phones are just starting to become available in some rural villages. About four-fifths of the country is Kalahari Desert sands, which was wild for this New Hampshire woman to see! It was so flat, sandy, and wide open! It took me a couple days to get over the feeling that I must be at the beach. The Okavango Delta and Chobe River in the north provide a lush green oasis for the wildlife and people.

While Botswana was my home for more than five months, I got to stay with six host families in six different villages around the country. Each family agreed to take me for about three weeks and it is amazing what close bonds can develop in that short time. Gradually, I came to learn the traditions and customs. Like stopping for tea whenever you have a visitor. Or bowing slightly when you greet an elder. I was immersed in the lifestyle of Botswana, participating in the daily activities: preparing food, taking care of the animals, going to school, helping neighbors.

Although most of Botswana's economy is based on the export of diamonds and beef, subsistence agriculture is still what sustains most of the people there. Everyone aspires to raise his own animals— chickens, goats, donkeys, cattle; in fact, a typical bride price (or "lobola") is about ten head of cows. They grow their own crops: particularly maize (white corn) and sorghum. They also grow millet, melons, beans, sweet reed, and vegetables in some areas. Much of the supplemental food comes from South Africa. Many of the farmers I talked to asked me about the strange habit we have in America of growing corn to feed to our animals! In parts of the country, I was amazed at what the sandy soil would grow, and how little could sustain the foraging animals. People here are very concerned about the effects of the El Nino weather patterns.

The Botswana government does a lot for the people in the area of agricultural education and development. Every village has an Extension educator to help the

farmers with advice and training. There are many government loan programs for farmers who want to buy draft animals or plowing equipment or start a vegetable garden. Agriculture is a required class in school and most schools have small projects like gardens or flocks of chickens. Society is facing the problem of young people being lured away from their home villages by the excitement of the cities, only to find that, without skills, there are no jobs. So the government is encouraging the youth to learn as much as they can about farming, as this will support their families in the long run. My hosting organization, 4-B (like our 4-H) is also helping in this area.

Perhaps you are curious about some of the different plants I saw in Botswana. The most prevalent native plant is the acacia. This flat-topped tree is often part of the African landscapes we see in pictures. Brush from it is used to build fences and pens for the animals. Many trees and shrubs are covered with super-sharp two-to-three-inch thorns, and this is the reason I was too wimpy to go barefoot like the indigenous people! Palm trees grow in the Okavango Delta region. This plant is food for the elephants and also the source of material for beautiful baskets that the women weave. Also, I was so intrigued to see aloe plants taller than me!

I have returned with a new perspective on other cultures and a determination to encourage people to take any opportunity they can to learn about the culture of another country. The I.F.Y.E. program is a unique and wonderful way to do this! For those who can't participate as a representative, perhaps you would open your home to a foreign visitor for a few weeks. The I.F.Y.E. committee is always looking for host families for the delegates who come to stay in New Hampshire. This is a great opportunity to have an I.F.Y.E. experience without even leaving home!

What I will remember most about my stay in Botswana is the vibrancy of the people—the way singing and dancing is such a part of their lives, how they take time for their families, and the way they welcomed me into their communities. It is important for us to remember that all over the world, people are similar. They may grow different crops and build different houses, but, like us, they work, play, and love their families. I know that I will never be able to read the world news the same way again. My I.F.Y.E. experience is something I will always treasure.

For more information about the I.F.Y.E. program, as an applicant or host family, please contact the N.H. I.F.Y.E. Committee at 603-224-1934.

Jennifer Barton of Loudon was the 1997 recipient of the New Hampshire Plant Growers Association Scholarship. She currently works at Millican Nurseries in Chichester and will be continuing her studies at UNH this fall. She is majoring in Adult and Occupational Education with the goal of becoming an agriculture teacher.



Pioneer Pointers

Preparing for That Crossroad

There comes a crossroad in nearly every business—and those in the greenhouse industry are no different: you are faced with growth.

The demand for your product is exceeding supply; your customer base is strong and reliable; the labor force is finally adequate and running smoothly. As a result of all this, the next logical step seems to be to expand.

However, before you take the step, be sure to address one other component that—together with those mentioned above—lays the foundation needed to expand successfully. This component is financial strength.

Profits need to be strong and consistent. This may not be an issue if demand for your product is strong and the business is run efficiently. However, what are you doing with these profits? Are you:

- Drawing it as a personal salary to cover living expenses?
- Internally funding ongoing capital expenses?
- Using it to pay or service loans?

If you have answered yes to any of these, your liquidity (also referred to as working capital or cash reserves) may not be adequate to undertake an expansion—even though all other factors are positive. If you're expecting to obtain financing for an expansion, it's likely you will need to contribute at least 40% of the project costs from your own reserves. And if you plan to fund the project yourself, a buffer reserve above and beyond the cost of the project is needed to cover operating expenses and six months of debt service on already existing loans until the project is complete.

Strong working capital is essential to your business. Not only is it needed in adversity, but also in expansion—so always be planning ahead. Save and build your reserves.

For information about financing, call the Bedford office of First Pioneer Farm Credit, ACA, at 1-800-852-3252. (SW)



Notes

Clean up your act!! Summer tends to be the slowest time in the horticulture industry. Many houses are empty and potting is winding down. This presents the perfect time to begin sanitizing your operation. If weeds, disease, insects, or algae are chronic problems, you can eliminate them before they become worse. Weeds, white fly, and thrips can be greatly reduced if you kill every piece of vegetation in and around your houses.

Algae is a great haven for fungus gnats—plus, it looks horrible. Drying out your houses, along with an application of bleach or Greenshield will significantly improve insect control.

Your plant dump pile—everyone has one—keep it as far from your growing area as possible. Odds are that these plants were placed in the dump for a very good reason. An application of Roundup or some plant desiccant would be helpful. Avoid re-using dump piles as a mix in your growing operation. If you do, you're asking for trouble.

These simplistic suggestions can go a long way in improving your business. When customers—retail or wholesale—visit your business, image is everything. Even your staff can be impacted by a cleaner work environment. First impressions affect our buying decisions. Garbage, old pallets, etc.—all leave negative impressions. Unfortunately, many people think that because we are in a "dirty" business, dirt is okay. Wrong. In today's more competitive environment, weeds and junk are just not acceptable. People are interested in your entire operation—how you do business, how you present yourself, and—of course—the product you produce.

Jim Zablocki, Technical Manager of the Northern Horticultural Group, the Scotts Company, can be reached at 603-224-5583.

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It's raining outside as I write this Update. The prolonged rainy period and relatively mild temperatures will likely result in significant disease pressure from fungal LEAF SPOTS and BLIGHTS such as APPLE SCAB, ANTHRACNOSE diseases and NEEDLE-CASTS. And the potential for serious FIRE BLIGHT problems appears to be very high.

The greenhouse problems from March through early May have been fairly typical, although there have been more virus problems than usual. TOMATO RINGSPOT VIRUS was diagnosed on lipstick plants showing symptoms that are usually associated with cold water injury (similar to cold water injury on African violet). TOBACCO STREAK and POTY viruses were found on hebe-nium. The symptoms were a very subtle mottling of the foliage. IMPATIENS NECROTIC SPOT VIRUS (INSV) was confirmed on snapdragons, coleus, and felicia. INSV usually causes white, circular spots on the foliage of snapdragons, but in this case also caused a bronzed, sunken stem canker. Two viruses, LILY SYMPTOMLESS virus and poty virus were diagnosed on oriental lilies (the cultivars 'Espresso' and 'Moonshine'). The double virus infection caused growth distortions and chlorotic streaking of the foliage. Extensive SHOOT DIEBACK on coleus was caused by the fungus *phomopsis*. Other more 'typical' problems included PYTHIUM ROOT ROT on felicia, verbenas and geranium; EDEMA on geraniums; and iron/manganese toxicity on geraniums. Iron-manganese toxicity symptoms on geraniums are similar to those caused by high soluble salts (browning of the leaf margins and interveinal necrosis), except the interveinal chlorosis and browning are usually more severe. IRON/MANGANESE TOXICITY is com-

mon with poor drainage and/or low pH. The *pythium* infections on the geraniums had advanced to the point of causing "black leg" symptoms and, as a result, most of the crop was lost. If the problem had been diagnosed sooner, fungicide drenches may have helped.

Although we had a relatively mild winter, WINTER BURN or DESICCATION was evident on many conifers. The symptoms of bronzed or reddened needles was especially common on trees and shrubs that suffered from drought stress last year. Another disease problem that is most likely related to previous drought stress was noted throughout the native range of balsam fir last summer and is evident again this spring. The fungus *cytospora* is causing a TWIG CANKER on balsam fir. The canker eventually girdles the twigs at the base of the previous season's growth, causing the needles to drop and eventually resulting in "bird foot-like" bare shoot. PHOMOPSIS TWIG BLIGHT, also favored by drought stress (and winter injury), has been a common problem this spring.

Other problems on woody ornamentals included VOLUTELLA BLIGHT on pachysandra and a couple of cases of STEM CANKER on vinca, caused by the fungus *Phoma*. As mentioned above, the potential for fire blight seem to be high this spring. Many of the host plants (apple, pear, cotoneaster, hawthorn, mountain ash, quince, etc.) were in bloom during the extended wet weather in late April to early May. The late frost that occurred during the third week of April may confound the identification of fire blight infections since blight-injured blossoms look similar to those injured by frost. Suspected fire blight strikes should be pruned during dry weather.

GRAY SNOW MOLD has been

the primary problem on turfgrass samples received mid-March through mid-May. Although consistent snow cover was lacking in many southern areas, wet soil conditions combined with cold temperatures favored disease development.

The most common problems on turfgrass during late spring-early summer include RED THREAD, BROWN PATCH, LEAF SPOTS, and PYTHIUM BLIGHT. Red thread was fairly common on both perennial ryegrass and fescues last year, thus we can expect it to be a problem this year if cool, moist weather occurs during June and again in September. The easiest management practice is to collect the clippings when mowing.

One disease has already appeared on herbaceous annuals and perennials. COLLETOTRICHUM LEAF SPOT on pansy causes tan-to-straw-colored spots surrounded by a purple-red border on the leaves. The disease is easily spread by water splash from overhead irrigation or during rains. Several fungicides are registered for control, but applications are usually only required during prolonged wet conditions. BOTRYTIS BLIGHT was also common on field-grown pansies that were covered with mulch. The problem occurred in plantings where the mulch was left in-place during the warm spell in late March, creating ideal humid conditions.

To submit plant material for diagnosis, send samples (with a check for \$12.) to: The UNH Plant Diagnostic Lab, C/O Dr. Cheryl Smith, Plant Biology Department, Spaulding Hall-UNH, Durham, NH 03824. Samples should be accompanied by an identification form (available from your county Cooperative Extension). Cheryl Smith is the UNH Cooperative Extension Specialist in Plant Health, and can be reached at 603-862-3200.



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Three Big Ones

TANYA JACKSON

These plants are not herbs everyone will want in their gardens. But they're truly herbs and have great value, both in their herbal and landscape uses.

The first is horseradish (*Armoracia rusticana*). I first saw this planted in a demonstration herb garden at Longwood Gardens, Kennett Square, Pennsylvania. I knew horseradish had a long history of culinary and medicinal uses, but I'd never considered using it as a design element. It's very effective. It's large leaves contrast well with smaller, more finely textured plants. You just need to dig the root now and then to keep it in bounds.

A relative of the mustards, horseradish is the most pungent of all edible roots. Native to eastern Europe and western Asia, it grows wild and is cultivated throughout Europe, Asia, and North America.

For hundreds of years, it was prized as a medicinal herb. In the first century, Pliny claimed horseradish would dissolve gallstones and help cure asthma. Some people still swear by it for clearing sinuses and curing a cold. And some people use a paste of horseradish to heat the joints and ease arthritis. Like hot chile peppers, fresh horseradish is loaded with vitamin C.

It wasn't until the 16th century that horseradish was used for culinary purposes, but only (as Euell Gibbons points out in *Stalking the Healthful Herbs*) by "country people and strong laboring men." But by the 1700s, it began to appear on the tables of the gentry.

Today, in England, roast beef is always served with horseradish. In the United States, it is becoming increasingly popular, used in a variety of sauces and served in fancy restaurants with raw or smoked fish and meats. Here is one of my very favorite horseradish recipes:

Hot Reuben Dip

- 1 cup mayonnaise
- 1 16-ounce can sauerkraut, drained, squeezed, dried
- 1 small onion, minced
- 2 cups Swiss cheese, shredded
- 8 oz dried beef, finely chopped
- 2-3 tbsp prepared horseradish

Mix all ingredients in a large bowl. Transfer to a 1 1/2 quart casserole and bake at 350 degrees for 30-40 minutes. Serve with toasty rye bread or party rye bread. Serves 32.

The second big plant is rhubarb (*Rheum rhabarbarum*). The first harvest of rhubarb proclaims that spring has really arrived. I always remember my grandmother making the first sauce of the season, sort of like a ritual.

This is another occasion for doubters to ask, "Is this an herb?"

Yes, it is. You'll find a description and uses in nearly every old herbal. Our colonial ancestors relied on it faithfully as a tangy, healthful, cathartic spring tonic. It's high in calcium and contains vitamin A, potassium, magnesium, pantothenic acid, niacin, riboflavin, and ascorbic acid.

Growing rhubarb is easy and a clump takes little space. The planting place should be a spot where water does not collect. Dig a hole about 20 inches across and 12 inches deep. Add compost, well-rotted manure, or commercial fertilizer at the bottom of the hole. Mix it well with the soil. Set the root so that the crown is just below the surface and fill in the hole. Tamp and water the planting area. After new growth appears, mulch with straw or bark chips to conserve moisture and hold back weeds. Rhubarb is a heavy-feeding perennial and needs to be top-dressed with a

generous cup of 10-10-10 or some rich compost in the spring and a good forkful of well-rotted manure as you bed it down in the fall. Do not harvest the first year, but after that, enjoy plentifully in the spring and allow it to revitalize all summer while you enjoy the rest of the garden.

Rhubarb is easy to freeze for winter use. Just wash and cut into inch-long pieces and toss into plastic bags or boxes in amounts you find convenient. Or you can cook up rhubarb sauce and freeze that. You'll find good recipes for pies, crisps, or cobblers in any cookbook, or you might like to try something a little different—like these Sweet-Sour Rhubarb Balls—an excellent appetizer at any party. This is adapted from a wonderful little book called *Rhubarb Renaissance*, by Ann Saling.

Sweet-Sour Rhubarb Balls

- 1 lb lean ground beef (or vegetarian hamburger mix)
- 1 beaten egg (optional)
- 1/2 cup finely chopped onion
- 2-3 cloves garlic, finely ground
- 1/4 cup chopped water chestnuts
- 1/4 cup cornstarch
- 1/2 tsp salt
- 1/4 cup soy sauce
- 1/2 cup cooking oil
- 2 tbsp sherry
- 2 cups rhubarb sauce, sweetened with honey
- 1/2 cup chicken broth

Combine beef, egg, onion, garlic, water chestnuts, 2 tbsp cornstarch, salt, and 2 tbsp soy sauce.

Form into small meatballs. Fry them in a heavy skillet in the oil (I prefer to bake them on a large baking sheet in the oven, at 375 degrees, until done). Put 1 tbsp oil in the skillet. Add sherry, rhubarb

continued on next page

continued from page 27

sauce, and chicken broth. Add the remaining 2 tbsp soy sauce mixed with the remaining 2 tbsp corn starch. Let cook until bubbling and thickened. Add the meatballs and heat thoroughly. Serve, with toothpicks, in a chafing dish.

The third plant with a big personality is comfrey (*Symphytum officinale*). Again, this large, prickly-leaved herb does not belong in every garden, but it is a plant that bees and butterflies greatly love and they benefit from its blossoms. Its roots are somewhat invasive, but it has grown for twenty years in the same spot at the Urban Forestry Center without causing much trouble. We cut it back a couple times in the summer and put the leaves on

the compost pile. We dig some roots and make a useful salve for treating scrapes, rough gardeners' hands, and small cuts and bruises. It's big, leafy, and rather sprawling, flowering from May through frost with small, blue, bell-shaped blossoms in clusters. It propagates most easily from root cuttings, but seedlings will start up as well. Consider it only for background plantings.

Comfrey has had a long and checkered past. Basically, it's best not to use comfrey internally, as debate about its safety is far from over. It does, however, remain useful for external purposes. The mucilage in comfrey roots can benefit healthy skin and help heal injuries. It soothes and softens. The allantoin in it promotes the growth of new cells.

Comfrey Salve

To make a very simple salve, cut a few young leaves, dig and clean some roots, and gather some of the flowers. Chop all these up coarsely until you have about two cups and put this in an oven-proof dish with a cover. Add two cups of oil (olive, almond, grapeseed—it's your choice). Add two ounces of bee's wax. Cover and bake for about 40 minutes at 350 degrees. Everything will sort of melt down and mush together. Stir, then strain the mix through a fine sieve. Pour the salve in small jars, cover tightly, and let cool.

This pale green salve is as soothing and healing as the plant is prickly and itchy—another of Mother Nature's little mysteries in the herbal world.

Tanya Jackson, a well-known local herbalist, can be reached at 603-431-8011.

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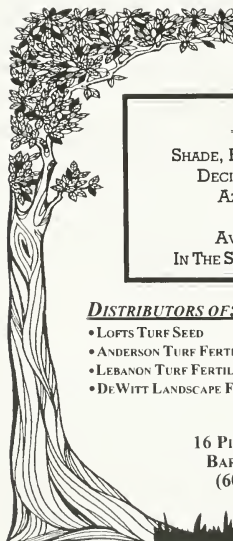
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FAX: 609-409-9360

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Phone: 804-233-3454
FAX: 804-233-8855



NHPGA TWILIGHT MEETING

CHURCHILL'S GARDEN CENTER

Thursday, June 18, 6-8 pm

12 Hampton Road (Route 27), Exeter, NH 03833

For most people, it's been a good year—spring's early; sales are up. So take an evening off—one evening—and celebrate.

Join New Hampshire Plant Growers' Association members and friends for a clambake—yes, a genuine clambake—lobster, clams, and chicken—being put on by Churchill's for you for this occasion. And there's no charge.

But it's more than just a party. There's a lot to learn here. Churchill's has recently undergone major changes—a new 6,000-square foot greenhouse, theme gardens, a perennial area featuring Blooms of Bressingham, expanded nursery yard, redesigned parking and traffic patterns—basically, a new layout. You'll see how a garden center can, by using limited space efficiently, continue to develop and expand.

Along with all this, Dr. Cheryl Smith, UNH Cooperative Extension Plant Health Specialist, will be here to discuss disease problems and solutions—so bring some questions along with your appetite.

As we said, there's no charge for the feast, but we do need to know numbers—an RSVP by Friday, June 12, would be appreciated. Call Jim Moser at 603-772-2685.

See you on the 18th.

(DIRECTIONS: Take 101 East to Rte 88 exit; go left at stop sign. Churchill's is 1/4 mile on your right. Or take 101 West to Route 111 exit; go left, then right at stop sign onto 27. Churchill's is one mile on your left.)

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